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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,570	06/17/2005	Jean-Philippe Pascal	273838US0PCT	4493

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EXAMINER	
DEES, NIKKI H	

ART UNIT	PAPER NUMBER
1794	

NOTIFICATION DATE	DELIVERY MODE
03/05/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/539,570	PASCAL ET AL.	
	Examiner	Art Unit	
	Nikki H. Dees	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2008 and 17 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-20,22 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-20,22 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 22, 2008, has been entered.

2. Claims 11-20, 22, and 23 are currently pending in the Application. Claim 21 has been cancelled. The previous rejections of claims 11-23 have been withdrawn in view of the amendment to claim 11 and the cancellation of claim 21.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 11, 13-17, 20, 22, and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (Mills, J.T. Insect-Fungus Associations Influencing Seed

Deterioration. Phytopathology. 1983. Vol. 73 (2). pp. 330-335) in view of Montville et al. (Montville, T.J., Goldstein, P.K. 1989. "Sodium Bicarbonate Inhibition of Aflatoxigenesis in Corn." J. Food Protect. Vol. 52 (1). pp. 45-48).

5. Mills teaches that grain mites (acarids) commonly occur in combination with *Aspergillus* spp. in stored cereals and oilseeds (Table 1).

6. Mills is silent as to the use of sodium bicarbonate to combat acarids.

7. Montville et al. teach sodium bicarbonate would be a safe, inexpensive way to control aflatoxin production in stored grains including corn (p. 45 cols. 1-2). They teach that sodium bicarbonate inhibits aflatoxin production and the growth of *A. parasiticus* in corn. (Abstract).

8. The sodium bicarbonate used by Montville et al. consists essentially of sodium bicarbonate, resulting in a powder comprising greater than 95% sodium bicarbonate. As sodium bicarbonate is generally recognized as safe (GRAS) it is also considered to be free of neurotoxic substances.

9. The combination is silent as to the particle size of the sodium bicarbonate.

10. As Mills teaches acarids commonly occurring in cereals in combination with *Aspergillus*, and Montville et al. teaches sodium bicarbonate for its fungicidal effects against *Aspergillus* spp. in cereals, it would have been obvious to one of ordinary skill to treat the cereals infested with *Aspergillus* spp. and acarids with sodium bicarbonate. The effect of the sodium bicarbonate on the acarids would have been inherent as sodium bicarbonate is the same active ingredient as taught by Montville et al. as a fungicide. Recognizing that sodium bicarbonate has acaracidal, as well as fungicidal

and insecticidal, effects is considered to be the recognition of an inherent property. As the prior art teaches the treatment of cereals with sodium bicarbonate, the claimed invention is considered to be obvious over the teachings of the prior art.

11. Regarding the particle size of sodium bicarbonate to be used in the invention, one of ordinary skill would have been able to determine the particle size of the sodium bicarbonate which proved most effective as a fungicide and against acarids. Absent any convincing arguments or evidence of unexpected results, this would have required no more than routine experimentation on the part of the artisan.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills in view of Montville et al. as applied to claim 11 above, and in further view of Applying Pesticides Correctly (The Ohio State University, 1992).

13. The combination of Mills and Montville et al. teaches applying sodium bicarbonate to cereal crops. Montville et al. speak to the large scale application of sodium bicarbonate to grains (p. 47 col. 2 last paragraph).

14. The combination is silent as to the application of the sodium bicarbonate to silo walls.

15. Regarding claim 12, Applying Pesticides Correctly teaches that a wettable powder formulation of a pesticide will leave more pesticide on the surface (p. 72 col. 2). They go on to state that spaces such as silos may be treated (p. 72 col. 2). Additionally, they speak to the covering of surfaces with pesticides (p. 73 col. 2).

16. As the combination of Mills and Montville et al. teaches the farm level application of sodium bicarbonate to corn, and Applying Pesticides Correctly teaches a method for applying pesticides to silo walls, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have sprayed the composition taught by Mills in view of Montville et al. onto surfaces as taught in Applying Pesticides Correctly in order to coat the inside surface of a silo so that the pesticide may come into contact with cereals stored in the silo.

17. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills in view of Montville et al. as applied to claim 11 above, and in further view of Misato et al. (4,599,233).

18. The combination of Mills and Montville et al. teaches applying sodium bicarbonate to cereal crops.

19. The combination is silent as to the presence of silica in combination with the sodium bicarbonate.

20. Misato et al. teach a fungicide composition comprising sodium bicarbonate (Abstract). They state that their composition may also contain a carrier such as silica (col. 5 line 20).

21. Misato et al. are silent as to the use of silica gel.

22. As the combination of Mills and Montville et al. teaches the application of sodium bicarbonate as a fungicide, and Misato et al. teaches sodium bicarbonate as a fungicide in combination with silica, one of ordinary skill would have found it obvious to utilize

silica as a carrier in the invention of Mills in view of Montville et al. in order to provide the most uniform coating of the cereals with the acaracidal/fungicidal composition.

23. In regard to claim 19 and the use of silica gel, it would have been obvious to one of ordinary skill in the art to have selected silica gel for use in the invention of Misato et al. as it is widely known and readily available desiccant. One skilled in the art would also have been able to adjust the amount of silica gel used in the invention to result in a product with the most desirable application properties for the intended application.

Response to Arguments

24. Applicant's arguments filed October 22, 2008, have been fully considered but are moot in view of the new grounds of rejection presented in response to Applicant's amendments to the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikki H. Dees whose telephone number is (571) 270-3435. The examiner can normally be reached on Monday-Friday 7:30-5:00 EST (second Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on (571) 272-1515. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nikki H. Dees/
Examiner, Art Unit 1794
/Lien T Tran/
Primary Examiner, Art Unit 1794

Nikki H. Dees
Examiner
Art Unit 1794